

# VL501

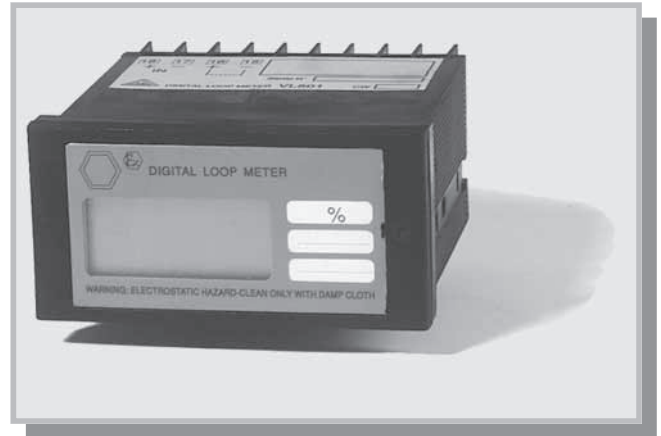
## Technical Data

Power supply:	from the current signal
Input current:	3,5 ÷ 100 mA
Drop voltage:	<2,1V a 20mA
Storage temperature:	-20 ÷ +70 °C
Working temperature:	0 ÷ +55 °C
Calibration:	dip-switch
Display:	LCD 3½ digit 12,7mm
Housing material:	Autohestinguish Noril
Mounting:	frontal panel
Mechanical proof:	IP42 (frontal) IP20 (rear)
Dimensions:	48x96x75 mm
Accuracy:	±0,1% end scale
Drift:	0,01%/°C
Connectors:	srew max 3mm <sup>2</sup>

# VL501

825B006G

Loop meter display 4÷20 mA 3½ digit LCD



## VL501 Mechanical installation

- 4÷20 mA SIGNAL CURRENT DISPLAY
- 4÷20 mA CURRENT SUPPLY
- INTERNAL 4mA AND 20mA SIMULATORS
- FRONTAL DIP-SWITCHES CALIBRATION

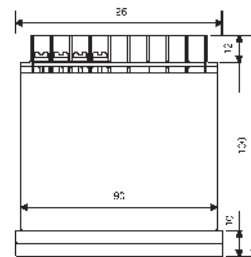
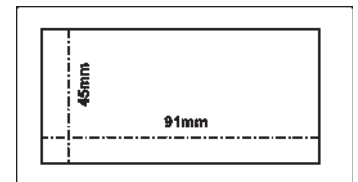


fig.1

fig.2



## VL501 General

The VL501 unit is a programmable loop-display, where the the 4-20mA signalcurrent from a current transmitter supply the VL501.

12.7mm LCD display can shows programmable scale from -1999 to + 1999.

The begin scale value (4mA) and theend scale value (20mA) are freely programmable.

Each VL501 selection/calibrationare made by dip-switches. Trimmers allows a fine adjustment.

The calibration are made frontally (take-out the frontal panel) and doesn't reqire any external tools like milliamperometer and current generators. That is possible because of an internal current simulator for 4 and 20mA.

The frontal panel has a window transparent pocket where you can lodge the tag lable , the scale range and the measure unit

## VL501 Connection and Applications

fig.4

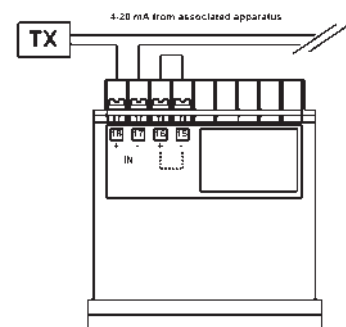
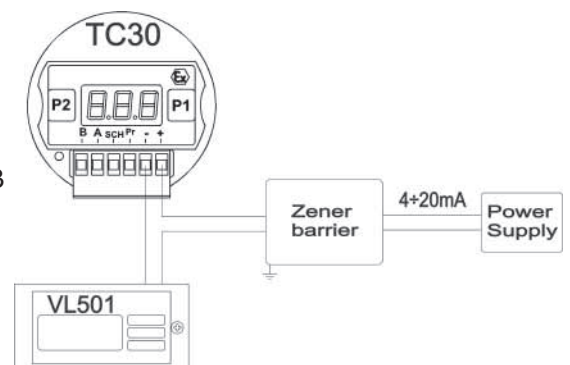


fig.3



## VL501 Operation mode

The VL501 has 3 operation mode selectable by first left dip-switch of the SPAN group and ZERO group.

### “DISPLAY” mode

Both first left dip-switch of “SPAN” and “ZERO” in “RUN” positions:

this is the normal input variable display operation.

see fig. 5

### “ZERO ADJ.” mode

The first dip-switch of the “ZERO” group in ADJ. position and the first dip-switch of the “SPAN” group in “RUN” position.

In this operation mode the reading of the input variable is disconnected and an internal simulator allows to set the value corresponding to the begin scale (4mA) using the “ZERO” dip-switches group.

see fig.6

### “SPAN ADJ.” mode

The first left dip-switch of the “SPAN” group in ADJ. position and the first left dip-switch of the “ZERO” group in “RUN” position.

In this operation mode the reading of the input variable is disconnected and an internal simulator allows to set the value corresponding to the end scale (20mA) using the “SPAN” dip-switches group.

The SPAN value is the absolute difference from ZERO value and the end scale value. For instance is the display has to shows -10.0 at 4mA and 100.0 at 20mA than,

$$\text{ZERO} = -10.0; \text{SPAN} = 110.0$$

Attention! due to the power supply from the signal current all the calibration must be made with a minimum 3,5mA current.

## VL501 Calibration

The ZERO and SPAN setting are not interfering, consequently no special procedure have to be made but random you can set one or the other as well.

The ZERO calibration is made setting the first left dip-switches of the “ZERO” and “SPAN” groups as showed in fig.6. The value corresponding to the 4mA input can be setted with the sum of the ZERO group dip-values. If necessary, a fine adjustment of the displayed value can be obtained turning the “ZERO fine” trimmer. If a negative value must be setted a special switch allows the sign selection.

The SPAN calibration access is made again the first left dip-switches of the “ZERO” and “SPAN” groups as showed in fig.7. The SPAN value (difference from 4mA value and 20mA value) can be set with the sum of the relevant SPAN dip-switches values.

The algebraic sum of the ZERO value and the SPAN value represent the value displayed at 20mA input.

If necessary, a fine adjustment of the displayed value can be obtained turning the “SPAN fine” trimmer.

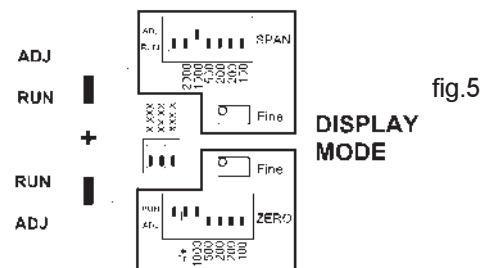


fig.5

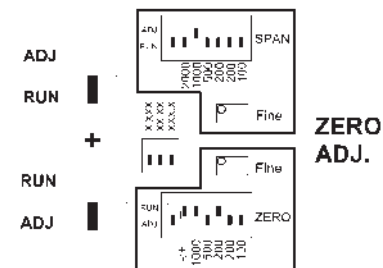


fig.6

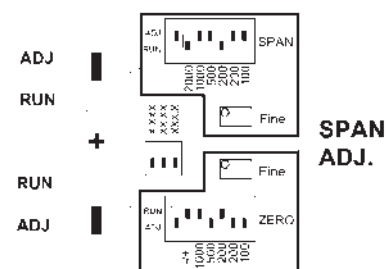


fig.7

## VL501 Warranty

Products supplied by SGM LEKTRA are guaranteed for a period of 12 (twelve) months from delivery date according to the conditions specified in our sale conditions document. SGM LEKTRA can choose to repair or replace the Product. If the Product is repaired it will mantein the original term of guarantee, whereas if the Product is replaced it will have 12 (twelve) months of guarantee. The warranty will be null if the Client modifies, repair or uses the Products for other purposes than the normal conditions foreseen by instructions or Contract. In no circumstances shall SGM LEKTRA be liable for direct, indirect or consequential or other loss or damage whether caused by negligence on the part of the company or its employees or otherwise howsoever arising out of defective goods.

## VL501 Factory test certificate

In conformity to the production and check procedures I certify the equipment:

VL501 ..... serial n. ....

satisfy technical characteristics as write in TECHNICAL DATA and it is conform to the internal procedures

Quality control Manager .....

Date of manufacture: .....



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